CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 95-033

SITE CLEANUP REQUIREMENTS FOR:

F.C.L.L. REALTY COMPANY
MR. ALBERT FONG

FORMER NORGE DRY CLEANERS FACILITY
1823 LINCOLN AVENUE
NAPA, NAPA COUNTY, CALIFORNIA

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Regional Board) finds that:

1. F.C.L.L. Realty Company (hereinafter Discharger(s)) is responsible for the investigation and cleanup of chlorinated solvent pollution at the former Norge Dry Cleaners facility located at 1823 Lincoln Avenue, Napa, California (the site). F.C.L.L Realty is the owner of the property, upon which Norge Dry Cleaners operated a retail dry cleaning facility from approximately 1962 until 1975. F.C.L.L. Realty is a general partnership and Mr. Albert Fong is its managing partner. Attempts to locate the owners and operators of the former dry cleaners have identified no other viable responsible parties.

2. Site Description: The site is located in the former Liquor Barn shopping center at the intersection of Lincoln Avenue and California Boulevard in Napa, Napa County, California. The site occupies approximately 7.5 acres and consists of four residential structures and a retail shopping center. The site lies at an elevation of approximately 50 feet above mean sea level in an area of gently rolling hills. The nearest surface water body is Napa Creek which lies approximately 900 feet south of the site. Napa Creek drains to the Napa River and San Pablo Bay. Future site use will most likely be solely commercial.

3. Site Investigations and Remedial Actions to date:
   a. In January 1994 Lowry/Krazan consultants conducted a Phase I Environmental Site Assessment at the request of a potential property buyer. Laboratory analysis of three soil samples revealed detectable concentrations of 1,2-dichloroethene (1,2-DCE), trichloroethene (TCE), and a maximum of 3,000 µg/kg tetrachloroethene (PCE). Laboratory analysis of three groundwater samples revealed detectable concentrations of 1,2-DCE; TCE; and a maximum of 20,000 µg/ℓ PCE.
   b. In January 1995 Applied Remedial Services (ARS) reported the results of subsurface investigation and soil remediation for the site. The report detailed the results of extensive sampling and analysis from 10

b. In January 1995 Applied Remedial Services (ARS) reported the results of subsurface investigation and soil remediation for the site. The report detailed the results of extensive sampling and analysis from 10 test pits, 7 grab groundwater samples (Hydropunches) and four monitoring wells. The results of laboratory analysis of soil samples revealed concentrations of trans-1,2-dichloroethene (t-1,2-DCE); cis-1,2-dichloroethene (c-1,2-DCE); TCE; and PCE. A maximum concentration of 3,000 µg/kg PCE was detected in soils near the former location of a drain to the sanitary sewer. Laboratory analysis of groundwater samples revealed concentrations of: t-1,2-DCE; c-1,2-DCE; TCE; and PCE. A maximum concentration of 6,000 µg/ℓ PCE was detected in a grab groundwater sample from an interceptor trench.

A total of approximately 2,700 cubic yards of PCE affected soil was excavated, aerated on-site, and backfilled. Concentrations of VOC's in soil have been reduced to less than 1 mg/kg. Three large interceptor trenches have been installed and a total of 160,000 gallons of polluted groundwater has been extracted, treated and discharged to the sanitary sewer. Groundwater concentrations in the extraction trench have stabilized at or around 1,400 µg/ℓ PCE.

4. A preponderance of evidence implicates the owners and operators of the dry cleaning facility as responsible parties. Dry cleaning facilities routinely use large volumes of PCE in their process. Possible scenarios for the discharge of PCE into the subsurface include:
   a. Surface spillage of PCE; poor housekeeping; and possible illegal discharges.
   b. A study competed in March 1992 by Mr. Victor Izzo of the Central Valley Regional Water Quality Control Board staff, titled "Dry Cleaners - A Major Source of PCE in Groundwater," reports that likely scenarios involve discharges of small volumes of PCE into the sanitary sewer, where PCE has been shown to migrate into the subsurface through small cracks in sewer laterals. Possible sources of small volume discharges could include floor drains and PCE-water separators.

5. Investigations to date have substantially defined the lateral and vertical extent of groundwater pollution at levels in excess of MCL's, however the absolute extent of pollutant migration has not been established.

6. Remedial actions to date have effectively removed all soils identified as potential sources of groundwater pollution and groundwater pollutant levels have reached an asymptotic level. This site should be an appropriate candidate for establishment of a non-attainment area based upon site geology and

residual contaminant distribution. Available options for removing or treating *in situ* groundwater pollution are limited. At many sites in this region and elsewhere, pump and treat technology is not adequate to meet low cleanup standards because the costs and timeframe may be prohibitive. Groundwater pollution cleanup is a lengthy process which requires significant resources and may not provide substantial incremental public and/or environmental health benefits.

7. Due to the nature of releases into and from sanitary sewers, it may not be possible to establish a non-detectable downgradient plume boundary. In this event, compliance points may be established at the property boundary if the concentrations of pollutants are at or below the appropriate MCL's.

8. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and the State Board approved it on May 21, 1987. The Board has amended the Basin Plan several times since then. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

9. Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally-high contaminant levels. Groundwater underlying and adjacent to the site qualifies as a potential source of drinking water.

10. The present and potential beneficial uses of the groundwater underlying and adjacent to the site include:
    a. Municipal and domestic water supply
    b. Industrial process water supply
    c. Industrial service water supply
    d. Agricultural water supply

11. The beneficial uses of Napa Creek, Napa River and San Pablo Bay and contiguous surface waters include:
    a. Warm freshwater habitat
    b. Industrial service supply
    c. Navigation
    d. Water contact recreation
    e. Non-contact water recreation
    f. Ocean commercial and sport fishing
    g. Wildlife habitat
    h. Preservation of rare and endangered species

i. Fish migration and spawning
j. Estuarine habitat

12. The prohibitions, specifications and provisions for this permit are based on the plans and policies of the Basin Plan, EPA water quality criteria, and best professional judgement.

13. The Discharger(s) has caused or permitted, or threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.

14. This action is an Order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

15. Pursuant to Section 13304 of the Water Code, the Discharger(s) are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.

16. The Board has notified the Discharger(s) and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

17. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code and regulations adopted thereunder, that the Discharger(s), their successors and assigns, shall comply with the following:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade, or threaten to degrade, water quality or adversely affect, or threaten to adversely affect, the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The Discharger(s) shall conduct monitoring activities as needed to define the current local hydrogeologic conditions, and the horizontal and vertical extent of groundwater pollution. Should monitoring results show evidence of pollutant migration, additional characterization of pollutant extent may be required.

3. Final cleanup goals for polluted groundwater, including sources of drinking water, on-site and off-site, shall be background water quality if feasible, in accordance with the State Water Resources Control Board's Resolution No. 68-16. If background water quality goals are not achievable, as determined by data submitted in monitoring reports, alternative goals may be proposed but must be approved by the Board. Alternate goals may include applicable standards, such as Maximum Contaminant Levels, and shall be based on an evaluation of the cost, effectiveness and a risk assessment to determine the effects on human health and the environment. These goals shall reduce the mobility, toxicity and volume of pollutants.

4. If groundwater extraction and treatment is considered as an alternative, the feasibility of water reuse or disposal to the sanitary sewer must be evaluated. Based on Regional Board Resolution 88-160, the Discharger(s) shall optimize, with a goal of 100%, the reclamation or reuse of groundwater extracted as a result of cleanup activities. The Discharger(s) shall not be found in violation of this Order if documented factors beyond the Discharger(s)' control prevent the Discharger(s) from attaining this goal, provided the Discharger(s) have made a good faith effort to attain this goal. If reuse is part of a proposed alternative, an application for Waste Discharge Requirements may be required. If discharge to waters of the State is part of a proposed alternative, an NPDES permit application must be completed and submitted, and must

include the evaluation of the feasibility of water reuse and disposal to the sanitary sewer.

C. PROVISIONS

1. The Discharger(s) shall perform all investigation and cleanup work in accordance with the requirements of this Order. All technical reports submitted in compliance with this Order shall be satisfactory to the Executive Officer, and, if necessary, the Discharger(s) may be required to submit additional information.

2. To comply with all of the Prohibitions, Specifications and Provisions of this Order and the Self-Monitoring Program, the Discharger(s) shall meet the following compliance task and time schedule:

COMPLIANCE TASKS AND DATES

a. **TASK: WORKPLAN FOR ADDITIONAL GROUNDWATER POLLUTION CHARACTERIZATION**

COMPLIANCE DATE: February 20, 1995

Submit a technical report acceptable to the Executive Officer containing a proposal to complete definition of the horizontal and vertical extent of groundwater pollution. This workplan should establish the extent of any off-site pollutant migration and a non-detect groundwater pollution plume boundary.

b. **TASK: COMPLETION GROUNDWATER CHARACTERIZATION AND PROPOSAL OF GROUNDWATER MONITORING PLAN**

COMPLIANCE DATE: 60 days after written approval by the Executive Officer of the workplan described in Provision 2.a.

Submit a technical report acceptable to the Executive Officer documenting completion of the necessary tasks identified in the technical report submitted for Provision 2.a. Should the results of additional investigation show evidence of pollutant migration, additional characterization of pollutant extent may be required.

c. **TASK: HUMAN HEALTH RISK ASSESSMENT**

COMPLIANCE DATE: March 15, 1995

Submit a technical report acceptable to the Executive Officer containing an assessment of the human health and environmental risk associated with the site under residential, commercial and light industrial land use scenarios. All pertinent exposure pathways and receptors should be evaluated. If existing conditions present an unacceptable risk to human health or the environment, a workplan and time schedule for additional interim remediation should accompany the risk assessment.

d. **TASK: PROPOSED FINAL CLEANUP OBJECTIVES AND FINAL REMEDIAL ACTION PLAN.**

COMPLIANCE DATE: April 15, 1995

Submit a technical report acceptable to Executive Officer containing a final remedial action plan and time schedule. If analysis of human health and environmental risk indicated that the site does not present an unacceptable risk, this report may recommend the establishment of an area of non-attainment for groundwater cleanup goals. Such report shall include, but will not be limited to:

1. a feasibility study developed in accordance with PROVISION 3 of this Order, to evaluate the alternatives for final remediation;
2. cleanup objectives and levels to be attained and the rationale which shows these cleanup objectives and levels comply with the Basin Plan;
3. the recommended measures necessary to achieve final cleanup levels and objectives;
4. a workplan and implementation time schedule for the proposed final remediation alternatives, including an estimation of the time needed to complete all remediation; and
5. a proposed monitoring and project review plan, specifying quarterly groundwater monitoring for a minimum of two years, and annual monitoring for a minimum of two additional years. The Executive Officer may approve reductions in monitoring frequency and/or duration based upon demonstration of plume stability.

e. **TASK: IMPLEMENTATION OF FINAL REMEDIAL ACTION PLAN**

COMPLIANCE DATE: **Within 180 days of Executive Officer approval of the final remedial action plan submitted for PROVISION 2.d.**

Submit a technical report acceptable to the Executive Officer, documenting completion of tasks necessary to implement the selected final remediation activities proposed in the workplan submitted for PROVISION 2.d. This report shall include, but will not be limited to, documentation of:

1. installation of all proposed ground water and vapor extraction wells, pumps, conveyance and treatment systems;
2. unexpected or unusual conditions encountered during the installation;
3. any soil removal; and
4. any variations from, or modifications to the approved remediation workplan or time schedule determined technically necessary.

In the event that a non-attainment area management strategy is approved by the Executive Officer in the plan submitted for PROVISION 2.d, this report will document the implementation of appropriate management controls such as deed restrictions, long term monitoring, and contingency plans.

f. **TASK: EVALUATION OF THE FINAL REMEDIAL ACTION PLAN.**

COMPLIANCE DATE: **1 year after implementation of the final remedial action plan described in Provision 2.d. and annually thereafter**

Submit a technical report, acceptable to the Executive Officer which evaluates the effectiveness of the final remedial action plan. This report should also include any necessary modifications or additional measures, with an implementation schedule, to fully remediate or contain the polluted groundwater. This report may be combined with annual groundwater monitoring reports established pursuant to PROVISION 2.d.

g. **TASK: EVALUATION OF NEW TECHNICAL INFORMATION**

COMPLIANCE DATE: **90 days after request from Executive Officer**

Submit a technical report acceptable to the Executive Officer that documents an evaluation of new technical and economic information which indicates that cleanup standards or cleanup technologies in some areas may be considered for revision. Such technical reports shall not be required unless the Executive Officer or the Board determines that such new information indicates a reasonable possibility that the Order may need to be changed.

3. The submittal of technical reports evaluating all interim and final remedial measures will include a projection of the cost, effectiveness, benefits and impact on public health and welfare, water quality, and the environment, of each alternative measure. The reports shall be consistent with the guidance provided by:
   a. State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California.";
   b. State Water Resources Control Board's Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304";
   c. Basin Plan for the San Francisco Bay Region.

4. If the Discharger(s) are delayed, interrupted or prevented from meeting one or more of the compliance dates specified in this Order, the Discharger(s) shall promptly notify the Executive Officer, and the Board may consider revision to this Order.

5. All hydrogeologic plans, specifications, reports and documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist or a California registered civil engineer.

6. The Discharger(s) shall comply with any Self-Monitoring Program as adopted by the Board and as may be amended by the Executive Officer.

7. The Discharger(s) shall file a report with the Board at least 30 days in advance of any changes in occupancy or ownership associated with the site described in this Order.

8. The Board will review this Order periodically and may revise the requirements or compliance schedule when necessary.

9. The Discharger(s) shall be liable, pursuant to Section 13304 of the Water Code, to the Board for all reasonable costs actually incurred by the Regional Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the Discharger(s) over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

10. Pursuant to California Water Code Sections 13304, 13305, 13350, 13385, 13386, and 13387, if the Discharger(s) fails to comply with this Order or any subsequent amendments, the Executive Officer may request the Attorney General to take appropriate enforcement action against the Discharger(s), including injunctive relief; or the Board may schedule a hearing to consider requesting the Attorney General to take appropriate enforcement action against the Discharger(s), including injunctive and civil monetary remedies; or the Board may schedule a hearing to administratively impose civil liability not to exceed five thousand dollars ($5,000) for each day this Order is violated.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on 2/15/95.

Steven R. Ritchie
Executive Officer